# APPENDIX A

# Guidelines for Reviewing OBQI Reports (Outcome, Case Mix, Patient Tally)

# Basic Information Regarding the Outcome, Case Mix, and Patient Tally Reports

The *Outcome, Case Mix,* and *Patient Tally Reports* are included in the report series produced by CMS for home health agency use in Outcome-Based Quality Improvement (OBQI). In these guidelines, the reports are described, key terms are defined, and "How to Read" instructions are presented for each report.

The outcome report has two sections (each of which is requested and printed or downloaded separately), one containing 29 risk-adjusted outcome measures and the other with 12 descriptive outcome results. For each outcome measure, a bar graph is presented. The first of the two bars reflects the actual percentage of your patients that attained the outcome in your "current" reporting period. The second bar reflects a reference value against which your outcome rate is compared. For the risk-adjusted outcomes, this bar reflects what your expected outcome rate would be given your case mix or risk factor distribution for that outcome. For the descriptive outcomes, this bar represents the average outcome rate across all patients nationwide whose episodes of care occurred during the reporting period and for whom OASIS data were submitted to the national OASIS repository. In short, the white bars in the outcome report represent your actual outcome rates and the darkened bars represent your expected outcome rates (for the risk-adjusted outcomes, calculated using a statistical prediction model based on a random sample of patients from all home health agencies) or the reference sample average rate (for the descriptive outcomes).

Utilization outcomes pertaining to discharge to the community, hospitalization, and emergent care were computed for all patients in your agency sample. Results for these measures appear on the final pages of the two report sections. The results for improvement and stabilization measures (end result outcomes), appearing at the beginning of the report sections, were computed only for those patients not discharged to an inpatient facility. Therefore, the results for these end result outcome measures are based on fewer patient episodes than the results for the utilization outcome measures.

Within the reports, significance levels are presented for each measure when the sample size corresponding to the measure is at least 10. If you had nine or fewer patients on whom the outcome measure could be computed validly, statistical significance is not provided.

The case mix report shows patient attributes or circumstances present at start of care (or resumption of care) that are likely to impact health status (such as a patient's environmental or living conditions, demographics, and baseline health status). For the report, individual (patient-level) case mix information is aggregated to the agency level to describe the health status of all the agency's patients at admission/resumption of care. Average values or percentages for case mix measures then are compared to the reference sample so that differences between the agency's patients and the reference sample of patients are identified. Future reports will also include a comparison to the same agency's patients during an earlier time period.

In view of the large number of factors included in the case mix reports, as well as the large size of the reference sample, it is natural that a number of statistically significant differences will appear between a single agency's case mix and the average case mix of the total reference sample. In comparing "current" to "reference" data in the case mix reports, a single asterisk [*] corresponds to the .01 level of significance (i.e., a 1% probability that the observed difference is due to chance) and the double asterisk [**] corresponds to the .001 level. Even relatively small

case mix differences are sometimes statistically significant because of the large reference sample size. Agencies, particularly those with a large number of patient episodes in a year, are cautioned not to "overinfer" about relatively small case mix differences simply because of statistical significance.

The case mix report can serve multiple purposes independent of other reports produced for OBQI, such as providing a descriptive overview of the types of patients admitted to an agency, monitoring the extent of changes in the population served over the course of time, and aiding public relations or marketing to payers and consumers. Agencies will also find it useful for staffing or clinical programmatic needs to monitor changes in agency case mix over time.

The patient tally report provides descriptive information for each individual case included in your outcome report analysis. For each case, you can identify if the patient contributed to an outcome measure and, if so, whether that outcome was achieved (for all outcomes in your outcome report). In addition, you can identify the values for each case mix variable (found in your case mix report) for every patient at start (or resumption) of care (e.g., his/her value on the bathing scale or whether he/she had an acute cardiac condition).

The primary use of the patient tally report is to select patients for your process-of-care investigation. For example, if you choose to investigate the outcome Improvement in Bathing as a target outcome, you can identify which patients improved in bathing and which did not improve, and select patients from each group. By conducting a process-of-care investigation, you should be able to identify specific care processes that can be remedied or reinforced. These specific clinical actions (and corresponding best practices) will be the basis for a plan of action to improve care.

# Key Terms

The following definitions of several key terms may help you to better understand the reports.

- **Improvement and Stabilization**: In the outcome reports, a patient *improves* if he/she is less severely ill, disabled, or dependent at discharge than at start (or resumption) of care. A patient has *stabilized* if he/she is no more disabled/dependent (that is, has not worsened) at discharge than at start of care. For example, a patient who was disabled in bathing at start of care and became less disabled at discharge has improved in bathing. If the patient did not worsen (but either improved or remained at the same level), then he/she stabilized. Thus, the opposite of stabilization is decline or worsening.

  The actual measures that correspond to improvement or stabilization quantify the above concepts. Consider again the improvement measure for bathing. The bathing scale used for data collection takes on values between 0 and 5, with higher values indicating progressively higher disability or dependence. A patient whose ability on this scale at start of care is 4, and whose value at discharge is 2, has improved in bathing, and therefore the improvement measure is 1 (if the patient had not improved, the improvement measure would be 0). Note that this outcome measure does not apply to patients who are initially independent in bathing (i.e., at a level 0 on the scale), because they cannot improve. Such patients are excluded from the calculation of the improvement measure.

  A patient has stabilized in bathing if, from start of care to discharge, the value on the bathing scale decreases or moves toward 0 (reflecting improvement) or remains the same. When stabilization occurs, the stabilization measure is 1 (when it does not occur, the stabilization measure is 0). Patients are excluded from the calculation of the measure if they cannot worsen because they are already at the most dependent level at start of care (i.e., at a level 5 on the scale for bathing).

  The number of patients excluded from the outcome calculations varies depending on the specific measure. For this reason, the number of patients included in the calculations also varies. The precise number of patients used in a calculation for any measure is presented in the column labeled "Elig. Cases" in the outcome report.

  Taking the average of the values for an improvement measure (or stabilization measure) for a group of patients yields the improvement rate (or stabilization rate) for that group. These rates are presented as percentages in the outcome reports.

  It should be noted that stabilization rates are typically substantially higher than improvement rates. This is due to the fact that stabilization rates reflect both patients who improve and patients who stay the same on a specific outcome. Care providers should not think in terms of a "grading system" for improvement rates; e.g., one must be above 90% to receive an 'A' or above 80% to receive a 'B.' Improvement rates are often below 50% and usually range from 25% to 60%, depending on the health status attribute of interest. On the other hand, stabilization measures typically tend to be above 75%, and some are even above 90% (Shaughnessy and Crisler, 1995, p. 6-8).

- **Significance***:* Statistical significance is relevant when comparing the "current" values to "reference" values in the outcome and case mix reports. It can be understood as the probability that a difference between two rates or averages is due to chance rather than due to a "real" difference between the two populations compared. If the statistical significance value is numerically high, then we consider it likely that any difference observed is due to chance. Statistical significance is related to the magnitude of the observed difference and the number of cases. A relatively large difference may be non-significant (have a high probability) when sample size is low, while a large sample size will produce significant (low probability) results with a smaller observed difference.

- **Criteria for Acute Conditions**: On the second page of the case mix reports, prevalence values are given for patients categorized with acute conditions. The inclusion of patients in these groups is based on the following criteria. The categories are not mutually exclusive.

  *Orthopedic Conditions*
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of start or resumption of care (SOC/ROC), or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any medical diagnosis pertaining to those events is related to the musculoskeletal system, including disorders of cartilage or other connective and soft tissues.

  *Neurologic Conditions*
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any medical diagnosis pertaining to those events relates to the nervous system.

  *Open Wounds or Lesions*
  Patients are included in this group if they have an open wound or skin lesion. Also, patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any medical diagnosis pertaining to those events relates to an open wound or skin lesion.

  *Terminal Conditions*
  Patients who have a life expectancy of six months or less are included in this group. These patients usually are receiving palliative care for terminal illnesses such as malignant neoplasms, end-stage cardiopulmonary disease, or end-stage renal disease.

  *Cardiac/Peripheral Vascular Conditions*
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any medical diagnosis pertaining to those events relates to the circulatory system.

  *Pulmonary Conditions*
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any medical diagnosis pertaining to those events relates to respiratory function.

*Diabetes Mellitus*
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any medical diagnosis pertaining to those events is diabetes mellitus.

*Acute Gastrointestinal Disorders*
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any medical diagnosis pertaining to those events is related to the digestive system.

*Contagious/Communicable Conditions*
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any medical diagnosis pertaining to those events is related to infections or parasitic diseases.

*Acute Urinary Incontinence/Catheter*
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if the patient is incontinent of urine or if the patient has a new indwelling catheter.

*Acute Mental/Emotional Conditions*
Patients receiving psychiatric nursing services at home are included in this group.

*Oxygen Therapy*
Patients receiving either intermittent or continuous oxygen therapy at home are included in this group.

*IV/Infusion Therapy*
Patients receiving intravenous or infusion therapy at home, such as hydration, or intravenous, subcutaneous, or intrathecal therapy for pain control, are included in this group.

*Enteral/Parenteral Nutrition Therapy*
Patients receiving enteral or parenteral nutrition at home, such as gastrostomy tube feedings or hyperalimentation, are included in this group.

*Ventilator Therapy*
Patients receiving continuous or intermittent ventilation therapy at home are included in this group.

- **Criteria for Chronic Conditions**: Patients who were <u>not</u> discharged from an inpatient facility (hospital, rehabilitation facility, or nursing home) within 14 days of SOC/ROC, and who did <u>not</u> experience a change in medical or treatment regimen within 14 days of SOC/ROC are assigned to a chronic group if they meet specified levels of dependency (or conditions for membership) for that group. Patients who <u>were</u> discharged from an inpatient facility within 14 days of SOC/ROC or who <u>did</u> experience a change in medical or treatment regimen within 14 days of SOC/ROC are assigned to a chronic group if and only if they met the specified levels of dependency/conditions for membership for that condition <u>prior</u> to the inpatient stay/medical regimen change.

The inclusion of patients in these groups is based on the following criteria. These categories are not mutually exclusive.

*Dependence in Living Skills*
Patients who meet the criteria for inclusion in chronic conditions are assigned to this group if they are unable to prepare main meals on a regular basis and require the assistance of another person for at least two of the following: laundry, transportation, housekeeping, shopping, or ability to use the telephone. The assistance required is necessary for routine or normal performance of the activity.

*Dependence in Personal Care*
Patients who meet the criteria for inclusion in chronic conditions are assigned to this group if they require the assistance of another person for bathing; or if they require assistance for grooming (combing or brushing hair, shaving or applying makeup, cleaning teeth or dentures, or trimming fingernails) plus dressing of upper or lower body.

*Impaired Ambulation/Mobility*
Patients who meet the criteria for inclusion in chronic conditions are assigned to this group if they require the routine assistance of another person for toileting, transferring, or ambulation.

*Eating Disability*
Patients who meet the criteria for inclusion in chronic conditions are assigned to this group if they are unable to feed themselves without constant supervision or assistance, or if they receive nutrients through a nasogastric or gastrostomy tube.

*Urinary Incontinence/Catheter Use*
Patients who meet the criteria for inclusion in chronic conditions are assigned to this group if they are incontinent of urine or have an indwelling/suprapubic catheter.

*Dependence in Medication Administration*
Patients who meet the criteria for inclusion in chronic conditions are assigned to this group if they require the assistance of another person for taking oral medications, inhalant medications, or injectable medications.

*Chronic Pain*
Patients who meet the criteria for inclusion in chronic conditions are assigned to this group if they are experiencing intractable pain.

*Chronic Cognitive/Mental/Behavioral Problems*
Patients who meet the criteria for inclusion in chronic conditions are assigned to this group if they demonstrate one or more of the following behaviors at least once a week:

1) memory deficit,
2) impaired decision making,
3) verbal disruption,
4) physical aggression,
5) disruptive, infantile, or socially inappropriate behavior (excludes verbal actions), or
6) delusions, hallucinations, or paranoid ideations.

*Chronic Condition with Caregiver*
Patients are included in this group if they have been assigned to one or more chronic conditions and an assisting person (caregiver) resides in the home.

- **Diagnoses for Which Patients Are Receiving Home Care**: Patients are assigned to each of these diagnostic categories if they are receiving home care for a diagnosis belonging to that category (excluding diagnoses that are currently asymptomatic). A patient may have several home care diagnoses and may, therefore, belong to more than one diagnosis category.

## How to Read the Case Mix Profile

The key features of the *Case Mix Profile* are listed below. In view of the large number of factors in the case mix profile, it is natural to expect that some differences should appear between a single agency's case mix and the average case mix of the reference sample. Each report feature is numbered and corresponds to a pointer in the sample report on the next page. This is a hypothetical *Case Mix Profile* report for "Faircare Home Health Services." Note: Both the agency data and reference values are hypothetical.

① **Current Mean:** Values in this column reflect case mix averages (means) based on data collected during the actual current period indicated in the upper right corner (in this example, this is 01/2001 to 12/2001). These values correspond to case mix means or averages at start (or resumption) of care (SOC/ROC) for all patients with a SOC/ROC assessment and a discharge (or transfer to a facility) during the report period. These are the same cases included in the outcome report.

② **Reference Mean:** Values in this column reflect case mix averages based on a nationally representative sample of patients from all agencies submitting OASIS data. Episode of care data starting between the beginning of January 2001 and ending by the end of December 2001 (the same time period as that represented by Faircare's data) are included in the reference sample.

③ **Sig:** Indicates whether or not a statistically significant difference exists between the "current" and "reference" means. Significance levels of .01 or lower are marked with a single asterisk (*) and levels of .001 or lower are marked with a double asterisk [**]. When a significance value is low (for example, .01), the results may be important because there is only a small likelihood (in this case, 1%) that the difference is due to chance. We suggest you examine only differences where the significance value is 1% or less, as indicated by the asterisks.

In fact, primarily because of the large reference sample, case mix reports may contain a substantial number of significant differences. When this occurs (as it frequently does, particularly for agencies with large numbers of patients), you should be attentive only to large differences between the means within the total group of asterisked differences.

④ **Case Mix Attributes Measured Using Scales:** Results for attributes measured using a health status scale (for example, a scale that takes on values between 0 and 5 -- as indicated by "0-5" after the attribute name) are expressed in terms of the average scale value for the attribute. **The scale values are determined by the answer options provided for the specific data item in the OASIS.** In general, higher scale values represent more impairment or a more severe condition than lower numeric values for the same measure.

*Example: Under the section on ADL Disabilities at SOC/ROC (start of care/resumption of care), the sample report shows that for Transferring, which is measured on a 0-5 scale, the average scale value for the current cases of Faircare Home Health Services is 0.64, compared with a mean of 0.70 for the reference sample. This indicates slightly less disability on this measure for Faircare's patients.*

⑤ **Case Mix Attributes Measured as Prevalences:** Results for attributes that are measured not by scales, but by simply presence or absence have a "%" next to them. The values in the "Current Mean" and "Reference Mean" columns provide the percentage of patients with a given attribute.

*Example: Under "Pain" the percentage of patients with intractable pain at start of care for Faircare Home Health Services is 14.0% compared with 13.7% in the reference sample (a nonsignificant difference).*

Agency Name: FAIRCARE HOME HEALTH SERVICES
Agency ID: HHA01
Location: ANYTOWN, USA
Medicare Number: 007001
Medicaid Number: 999888001

Requested Current Period: 01/2001 - 12/2001
Actual Current Period: 01/2001 - 12/2001
Number of Cases in Current Period: 601
Number of Cases in Reference Sample: 508465
Date Report Printed: 2/28/2002

# Case Mix Profile at Start/Resumption of Care
## For Risk-Adjusted/Descriptive Outcome Report

(1) (2) (3)

| | Current Mean | Reference Mean | Sig. |
|---|---|---|---|
| **Demographics** | | | |
| Age (average in years) | 70.75 | 72.78 | ** |
| Gender: Female (%) | 69.4% | 62.9% | ** |
| Race: Black (%) | 1.7% | 10.7% | ** |
| Race: White (%) | 97.5% | 85.5% | ** |
| Race: Other (%) | 0.8% | 3.8% | ** |
| **Payment Source** | | | |
| Any Medicare (%) | 80.4% | 82.6% | |
| Any Medicaid (%) | 12.9% | 14.3% | |
| Any HMO (%) | 3.0% | 5.8% | * |
| Medicare HMO (%) | 1.3% | 2.2% | |
| Any third party (%) | 19.9% | 21.9% | |
| **Current Residence** | | | |
| Own home (%) | 74.7% | 78.7% | |
| Family member home (%) | 20.5% | 14.1% | ** |
| **Current Living Situation** | | | |
| Lives alone (%) | 28.6% | 29.4% | |
| With family member (%) | 66.7% | 64.2% | |
| With friend (%) | 1.3% | 1.6% | |
| With paid help (%) | 2.3% | 3.3% | |
| **Assisting Persons** | | | |
| Person residing in home (%) | 57.0% | 55.9% | |
| Person residing outside home (%) | 44.3% | 53.0% | ** |
| Paid help (%) | 9.3% | 14.1% | ** |
| **Primary Caregiver** | | | |
| Spouse/significant other (%) | 31.0% | 33.6% | |
| Daughter/son (%) | 33.0% | 26.4% | ** |
| Other paid help (%) | 3.7% | 6.1% | * |
| No one person (%) | 21.7% | 20.2% | |
| **Primary Caregiver Assistance** | | | |
| Freq. of assistance (0-6, scale avg.) | 4.11 | 4.10 | |
| **Inpatient DC within 14 Days of SOC/ROC** | | | |
| From hospital (%) | 69.1% | 68.4% | |
| From rehab facility (%) | 7.2% | 6.4% | |
| From nursing home (%) | 1.8% | 3.3% | |
| **Med. Reg. Chg. w/in 14 Days of SOC/ROC** | | | |
| Medical regimen change (%) | 67.7% | 81.2% | ** |
| **Prognoses** | | | |
| Moderate recovery prognosis (%) | 85.3% | 85.9% | |
| Good rehab prognosis (%) | 62.6% | 68.2% | * |
| **ADL Disabilities at SOC/ROC** | | | |
| Grooming (0-3, scale average) | 1.02 | 0.86 | ** |
| Dress upper body (0-3, scale avg.) | 0.56 | 0.59 | |
| Dress lower body (0-3, scale avg.) | 1.22 | 1.10 | * |
| Bathing (0-5, scale average) | 2.15 | 2.03 | |
| Toileting (0-4, scale average) | 0.63 | 0.57 | |
| Transferring (0-5, scale average) (4) | 0.64 | 0.70 | ** |
| Ambulation (0-5, scale average) | 1.05 | 1.07 | |
| Eating (0-5, scale average) | 0.33 | 0.32 | |

| | Current Mean | Reference Mean | Sig. |
|---|---|---|---|
| **ADL Status Prior to SOC/ROC** | | | |
| Grooming (0-3, scale average) | 0.66 | 0.52 | ** |
| Dress upper body (0-3, scale avg.) | 0.35 | 0.35 | |
| Dress lower body (0-3, scale avg.) | 0.70 | 0.63 | |
| Bathing (0-5, scale average) | 1.33 | 1.20 | |
| Toileting (0-4, scale average) | 0.39 | 0.38 | |
| Transferring (0-5, scale average) | 0.38 | 0.44 | ** |
| Ambulation (0-5, scale average) | 0.70 | 0.71 | |
| Eating (0-5, scale average) | 0.22 | 0.21 | |
| **IADL Disabilities at SOC/ROC** | | | |
| Light meal prep (0-2, scale avg.) | 1.02 | 0.90 | ** |
| Transportation (0-2, scale avg.) | 1.05 | 0.99 | ** |
| Laundry (0-2, scale average) | 1.62 | 1.51 | ** |
| Housekeeping (0-4, scale avg.) | 2.89 | 2.68 | ** |
| Shopping (0-3, scale average) | 2.10 | 2.06 | |
| Phone use (0-5, scale average) | 0.63 | 0.72 | |
| Mgmt. oral meds (0-2, scale avg.) | 0.69 | 0.70 | |
| **IADL Status Prior to SOC/ROC** | | | |
| Light meal prep (0-2, scale avg.) | 0.65 | 0.56 | * |
| Transportation (0-2, scale avg.) | 0.78 | 0.69 | ** |
| Laundry (0-2, scale average) | 1.10 | 0.96 | ** |
| Housekeeping (0-4, scale avg.) | 1.93 | 1.73 | * |
| Shopping (0-3, scale average) | 1.45 | 1.32 | |
| Phone use (0-5, scale average) | 0.49 | 0.59 | |
| Mgmt. oral meds (0-2, scale avg.) | 0.53 | 0.54 | |
| **Respiratory Status** | | | |
| Dyspnea (0-4, scale average) | 1.33 | 1.19 | |
| **Therapies Received at Home** | | | |
| IV/infusion therapy (%) | 4.3% | 3.7% | |
| Parenteral nutrition (%) | 0.5% | 0.3% | |
| Enteral nutrition (%) | 2.2% | 1.8% | |
| **Sensory Status** | | | |
| Vision impairment (0-2, scale avg.) | 0.32 | 0.30 | |
| Hearing impair. (0-4, scale avg.) | 0.38 | 0.45 | ** |
| Speech/language (0-5, scale avg.) | 0.45 | 0.47 | |
| **Pain** | | | |
| Pain interf. w/activity (0-3, scale avg.) | 0.95 | 0.98 | |
| Intractable pain (%) (5) | 14.0% | 13.7% | |
| **Neuro/Emotional/Behavioral Status** | | | |
| Moderate cognitive disability (%) | 10.8% | 11.9% | |
| Severe confusion disability (%) | 5.7% | 6.9% | |
| Severe anxiety level (%) | 16.7% | 11.7% | ** |
| Behav probs > twice a week (%) | 14.0% | 5.7% | ** |
| **Integumentary Status** | | | |
| Presence of wound/lesion (%) | 31.6% | 31.2% | |
| Stasis ulcer(s) present (%) | 3.7% | 2.9% | |
| Surgical wound(s) present (%) | 21.1% | 22.3% | |
| Pressure ulcer(s) present (%) | 8.2% | 5.4% | * |
| Stage 2-4 ulcer(s) present (%) | 6.5% | 4.5% | |
| Stage 3-4 ulcer(s) present (%) | 4.0% | 1.4% | ** |

# How to Read the Outcome Report

The most important features of the *All Patients' Outcome Report* are listed below. Each feature is numbered and corresponds to a pointer in the sample report on the next page.

① **Report Section:** The outcome report has two sections, one containing risk adjusted outcome rates and the other displaying descriptive outcome results. There are 29 measures included in the risk-adjusted report section, and 12 outcomes are displayed in the descriptive report section. Each section is requested and printed or downloaded separately.

② **Key to shades used in the bar chart**: "Current" values are actual agency outcome rates calculated from data collected in the requested data collection period. "Reference" values reflect your agency's expected outcome rate given your specific case mix or risk factor distribution for that outcome (for the risk-adjusted outcomes) or the reference sample average rate (for the descriptive outcomes).

③ **Outcome Headers**: Describe the types of outcome measures listed immediately below the heading. Two types of outcome measures are used in the reports: end result (reflecting changes in health status) and utilization outcomes.

④ **Bar Graphs**: Indicate the percentage of patient cases who achieved the outcome for the given measure. For each measure, two bars are presented, corresponding to the "current" and "reference" groups.

*Example: For the measure "Stabilization in Grooming," the first bar shows that 89.8% of the "current" patients stabilized, the second bar shows that 92.8% of the "reference" patients stabilized.*

⑤ **Eligible Cases**: The number of patient cases included in the group for which the outcome was computed.

*Example: For the measure "Stabilization in Grooming," there were 353 cases from "current" data, 89.8% of which stabilized in grooming; and there were 333,193 cases from the "reference" data, 92.8% of which stabilized.*

⑥ **Significance**: This is relevant when outcomes are compared between sets of patient cases (for example, "current" vs. "reference") and indicates the level of statistical significance for the comparison. This value will always be between 0.00 and 1.00 and can be readily translated to percentage. The percentage is the probability that the result occurred by chance.

*Example: For the measure "Stabilization in Grooming," 89.8% of "current" patient cases stabilized, compared with 92.8% of "reference" cases who stabilized. The "0.05" value in the significance column means that there is a 5% probability that this difference (between 89.8% and 92.8%) is due to chance. Consequently, there is a 95% probability that the difference is not due to chance, but is a real phenomenon.*

When a significance value is high (for example, .90), any difference should be disregarded or interpreted conservatively because there is a greater likelihood that the difference is due to chance (a 90% likelihood, in this case). When a significance value is low (for example, .01), the result should be considered important because there is almost no likelihood (for example, 1%) that the difference is due to chance. We suggest that you concentrate on differences where the significance value is 10% or less, as indicated by the single or double asterisks.

Agency Name: FAIRCARE HOME HEALTH SERVICES
Agency ID: HHA01
Location: ANYTOWN, USA
Medicare Number: 007001
Medicaid Number: 999888001

Requested Current Period: 01/2001 - 12/2001
Actual Current Period: 01/2001 - 12/2001
Number of Cases in Current Period: 374
Number of Cases in Natl Ref Sample: 357978
Date Report Printed: 02/28/2002

(1)

# All Patients' Risk Adjusted Outcome Report

| (3) End Result Outcomes: | (5) Elig. Cases | (6) Signif. | (2) Current | National Reference |
|---|---|---|---|---|
| Improvement in Grooming | 169 / 168953 | 0.39 | 63.3% (107) | 66.7% |
| Stabilization in Grooming | 353 / 333193 | 0.05 ** | 89.8% (317) | 92.8% |
| Improvement in Upper Body Dressing | 136 / 189591 | 0.33 | 53.7% (73) | 58.2% |
| Improvement in Lower Body Dressing | 203 / 218367 | 0.16 | 59.5% (121) | 64.6% |
| Improvement in Bathing | 262 / 293613 | 0.23 | 59.5% (156) | 63.3% |
| Stabilization in Bathing | 349 / 337630 | 0.40 | 88.8% (310) | 90.3% |
| Improvement in Toileting | 92 / 112708 | 0.22 | 56.0% (52) | 63.2% |
| Improvement in Transferring | 134 / 206615 | 0.07 * | 63.4% (85) | 55.4% |
| Stabilization in Transferring | 365 / 352429 | 1.00 | 92.9% (339) | 92.8% |
| Improvement in Ambulation/Locomotion | 234 / 284588 | 0.08 * | 43.1% (101) | 37.4% |
| Improvement in Eating | 70 / 93545 | 0.85 | 57.1% (40) | 58.9% |
| Improvement in Light Meal Preparation | 229 / 243681 | 0.00 ** | 46.7% (107) | 61.0% |
| Stabilization in Light Meal Preparation | 254 / 242467 | 0.00 ** | 83.1% (211) | 90.6% |
| Improvement in Laundry | 346 / 336214 | 0.01 ** | 39.3% (136) | 46.4% |
| Stabilization in Laundry | 124 / 107701 | 0.00 ** | 76.6% (95) | 86.5% |

(4)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent (Number) of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

# How to Read the Patient Tally Reports

The key features of the *Patient Tally Reports* are listed below. There are two separate tally reports available, one presenting an individual patient's case mix data at the start or resumption of a care episode, and the other presenting outcome information for each patient case included in the outcome report. Each report feature is numbered and corresponds to a pointer in the sample report portions on the next page.

① **Patient Name:** Each row in a tally report corresponds to a single case (i.e., a patient that has an SOC/ROC assessment and a corresponding discharge or transfer assessment during the report period).

② **SOC/ROC Date:** This is the start of care/resumption of care date for the episode followed by SOC/ROC case mix or outcome data. Patients with multiple SOC/ROC and corresponding discharge or transfer assessments will have a listing for each episode. Using the patient name and SOC/ROC date, it is possible to identify individual episodes of care.

③ **Descriptive Labels:** Descriptive labels are printed at the top of each column for outcome and case mix attributes.

**For the Case Mix Tally Report**

④ **Attributes Measured by Presence/Absence:** Most case mix attributes with no scale range listed after the attribute name in the label are dichotomies (attributes that only are present or absent) and are presented as:

"y" if the case mix attribute was present,
"n" if the case mix attribute was not present, or
"-" if data were not available.

⑤ **Attributes Measured Using Scales:** Some SOC/ROC case mix attributes are measured using integer (or number) scales. The labels (at the top of the column) for such items include the possible range of values in parentheses. The patient's score on an attribute will be shown as:

a number within the range indicated, or
"-" if no data were collected for the attribute.

An exception to this is "Age," which does not have a range in its label but is nonetheless a continuous measure represented by a number.

**For the Outcome Tally Report**

⑥ **End Result Outcomes** are measured as improvement or stabilization on a specific outcome. Each patient will have either an "x," "o," or "-" for each outcome:

"x" means that a patient achieved the outcome (e.g., stabilized in speech or language).
"o" means that a patient did not achieve the outcome (e.g., did not improve in speech or language).
"-" indicates that the outcome could not be calculated for that patient. This occurs if any patient did not meet the inclusion criteria for the outcome (i.e., an improvement measure does not apply to patients who are initially independent in that measure and a stabilization measure does not apply to patients who are initially at the most dependent level for that measure) or if data were not collected for the underlying attribute.

⑦ **Utilization Outcomes** are indicated as whether they occurred (or not):

"y" means that the outcome occurred (e.g., the episode ended in acute care hospitalization).
"n" means that the utilization outcome did not occur (e.g., the patient did not receive any emergent care).

**Agency Name:** FAIRCARE HOME HEALTH SERVICES
**Agency ID:** HHA01
**Location:** ANYTOWN, USA

**Medicare Number:** 007001
**Medicaid Number:** 999888001
**Date Reported:** 02/28/2002

## Case Mix Tally Report

Report Period: 01/01/2001- 12/01/2001

Legend:
y = Attribute present
n = Attribute not present
number = Patient's actual score on item with scale
- = No data collected for this item

| Patient Name | SOC/ROC Date | Demographics: Age | Gender: Female | Race: Black | Race: White | Race: Other | Payment Source: Any Medicare | Any Medicaid | Any HMO | Medicare HMO | Private Third party | Residence: Own Home | Family member home | Current Living Situation: Lives alone | With other family member | With friend | With paid help | Primary Caregiver: Spouse/significant other | Daughter/son | Other paid help | No one person | Freq. of assistance (0-6) | Inpt DC: From hospital | From rehab facility | From nursing home | Med Reg: Medical regimen change | Prognoses: Moderate recovery prognosis | Good rehab prognosis |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANDERSON, ---------- | 06/12/01 | 74 | y | n | y | n | y | n | n | n | n | y | n | y | n | n | n | n | n | n | y | 0 | y | n | n | n | y | y |
| BROWN, ---------- | 11/24/00 | 66 | y | n | y | n | y | y | n | n | n | y | n | y | n | n | n | n | n | n | y | 0 | n | n | n | y | y | y |
| BYRNNE, ---------- | 08/24/01 | 81 | y | n | y | n | y | n | n | n | n | n | n | n | n | n | y | n | n | y | n | 5 | n | n | n | n | y | y |

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## Outcome Tally Report

Report Period: 01/01/2001- 12/01/2001

Legend:
x = Patient achieved outcome
o = Patient did not achieve outcome
- = Outcome not computed for patient
y = Yes
n = No

| Patient Name | SOC/ROC Date | Health Status Outcomes: Improv in speech or language | Stabil in speech or language | Improv in pain interfering with activity | Improv in number of surgical wounds | Improv in status surgical wounds | Improv in dyspnea | Improv in urinary tract infection | Improv in urinary incontinence | Improv in bowel incontinence | Improv in cognitive functioning | Stabil in cognitive functioning | Improv in confusion frequency | Improv in anxiety level | Stabil in anxiety level | Improv in behavioral problem frequency | Utilization Outcomes: Discharged to the community | Acute care hospitalization | Any emergent care |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANDERSON, ---------- | 06/12/01 | - | x | o | x | o | o | - | o | - | - | x | - | - | o | - | n | y | n |
| BROWN, ---------- | 11/24/00 | - | x | - | - | - | x | - | - | - | - | x | - | - | x | - | n | y | n |
| BYRNNE, ---------- | 08/24/01 | o | o | x | - | - | x | - | - | - | o | x | o | - | x | - | n | y | n |

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